

Appl. No. 10/692,971
Reply to Office Action of March 29, 2006

REMARKS

In the March 29, 2006 Office Action, Applicant's last Response (dated January 31, 2006) was deemed to be not fully responsive. In this regard, Applicant's last Response inadvertently referred to claim 1 (which had been canceled) rather than to claim 21. The following Remarks correctly refer to claim 21. For the sake of completeness, all of the Remarks are repeated below.

Corrected Remarks

In the November 4, 2005 Office Action, claim 1 was rejected, and claims 4-10 were deemed objectionable. Curiously, the Office Action did not explicitly reject or object to claim 11, nor did it explicitly address claims 4-10. Nevertheless, this Response amends claims 4, 5, 9, 11, cancels claim 1, and introduces new claims 21-23. After entry of the foregoing amendments, claims 4-11 and 21-23 (11 total claims; 1 independent claim) remain pending in the application. Reconsideration of the application is respectfully requested in view of the above amendments and the following remarks.

Information Disclosure Statement

The Office Action acknowledges receipt of Applicant's IDS dated July 26, 2005, but indicates that one of the cited references was not considered. A Supplemental IDS is being filed herewith to correct a typographical error in this reference. Namely, the July 26, 2005 IDS inadvertently cited USPA 2004/057787 rather than USPA 2004/0057787. The Supplemental IDS indicates the correct application number for this reference.

Amended Title

The Title has been amended to reflect the withdrawal of the originally filed method claims and to remove a typographical error.

Summary of Claim Amendments

The original set of claims was amended in response to the Office Action dated February 8, 2005, which indicated that original dependent claims 3-11 were allowable. In the spirit of

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speedy prosecution, Applicant amended the original set of claims with the expectation of receiving a Notice of Allowance for all pending claims. In lieu of a Notice of Allowance, however, the Office issued the present Office Action, which cites new grounds of rejection for claim 1. The amended claim set includes new independent claim 21 that roughly corresponds to original claim 1, retains dependent claims 4-11 (now variously dependent on claim 21) in a form that roughly corresponds to original claims dependent 4-11, and introduces new dependent claims 22 and 23 (each dependent on claim 21) that roughly correspond to original dependent claims 2 and 3. Thus, the newly amended claim set tracks original claims 1-11, but with new independent claim 21 as a replacement for original independent claim 1. Support for new claim 21 can be found in the original description and claims, for example, at paragraphs 0033, 0042, and 0045.

Prior Art Rejections

Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over Chan et al., USPN 5,743,492 (hereinafter "Chan") in view of Comtesse, EP 1355120, having a United States counterpart USPN 2003/0196544 (hereinafter "Comtesse"). Claim 1 was also rejected under 35 U.S.C. §103(a) as being unpatentable over Chan in view of Khatiblou et al., USPN 5,735,626 (hereinafter "Khatiblou"). If the Office decides to maintain and apply these rejections to new claim 21, Applicant traverses the rejections as follows.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify a reference or to combine the teachings of multiple references. Second, there must be a reasonable expectation of success. Third, the prior art must teach or suggest all of the recited claim limitations. Of course, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure. Applicant respectfully submits that the Examiner has not met all of the above criteria.

Regarding the combination of Chan and Comtesse, Chan discloses a separation joint for a launch vehicle payload housing, as depicted in Chan's FIGS. 20, 22, and 23. The Chan device utilizes an explosive that physically breaks and separates the joint into two halves, as shown in Chan's FIG. 23. The Office Action correctly states that Chan does not teach a separation joint

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having flanged members as recited in new claim 21. The Office Action, however, relies upon Comtesse for its disclosure of a separation joint that employs flanged elements.

The combination of Chan and Comtesse lacks some of the limitations recited in new claim 21. For example, this combination neither teaches nor suggests a first separation joint member that is elastically flexed in response to compressive force placed on a clevis of the first member. Moreover, this combination neither teaches nor suggests the mating of flanges when the first member is released from flexing. Therefore, the teaching of Chan and Comtesse is deficient with respect to new claim 21, and Applicant respectfully submits that new claim 21 is allowable over this prior art.

Regarding the combination of Chan and Khatiblou, Khatiblou discloses a separation joint having two members that "clip" together when the male member is inserted into the female member (the arrows A1 and A2 in Khatiblou's FIG. 1 illustrate how the two members are clipped together). An explosive device propels the two members away from each other, and the explosive force is strong enough to unclip the two members (see Khatiblou at Column 4, Lines 30-46).

The combination of Chan and Khatiblou, however, lacks some of the limitations recited in new claim 21. For example, this combination neither teaches nor suggests a first separation joint member that is elastically flexed in response to compressive force placed on a clevis of the first member. Moreover, this combination neither teaches nor suggests the mating of flanges when the first member is released from flexing. Therefore, the teaching of Chan and Khatiblou is deficient with respect to new claim 21, and Applicant respectfully submits that new claim 21 is allowable over this prior art.

The prior art of record fails to teach or suggest a number of limitations recited in Applicant's dependent claims. For example, the prior art of record neither teaches nor suggests a separation joint first member having first and second holding members for the explosive device having the structural arrangement and features recited in claim 6. As another example, the prior art of record neither teaches nor suggests the use of a crushable material on the explosive device having the structural arrangement and features recited in claim 7 (or claim 8). As yet another example, the prior art of record neither teaches nor suggests the use of a structural element having a thinned region for increasing flexibility of the first separation joint

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member, as recited in claim 10. Therefore, at least claims 6-10 are allowable for these additional reasons.


In conclusion, for the reasons given above, all claims now presently in the application are believed allowable and such allowance is respectfully requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the undersigned attorney at (480) 385-5060.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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